

VL

D I Q M T Q T T S S L S A S L G D R V T
gatatccagatgacccagactacatccctcctgtctgcctctctgggagacagagtcacc
I S C R A S Q D I S N Y L N W Y Q Q K P
attagttgcagggcaagtcaggacattagcaattatttaaactgggtatcagcagaaacca
D G T V K L L I Y Y T S I L H S G V P S
gatggaaactgttaaactcctgatctaactacacatcaatattacactcaggagtcccatca
R F S G S G S G T D Y S L T I S N L E Q
aggttcagtgaggcagtggtctggaacagattattctctcaccattagcaacctggagcaa
E D F A T Y F C Q Q G N T L P W T F G G
gaagattttgccacttacttttgccaacaggttaatacgttccgtggacgttcggtgga
G T K L E I K
ggcaccaagctggaaatcaaa

VH

E V Q L V E S G G G L V K P G G S L K L
gaagtgcagctgggtggagtctgggggaggcttagtgaagcctggagggtccctgaaactc
S C A A S G F A F S I Y D M S W V R Q T
tcctgtgcagcctctggattcgctttcgtatctatgacatgtcttgggttcgccagact
P E K R L E W V A Y I S S G G G T T Y Y
ccggagaagaggctggagtgggtcgcatatactggtggtgaccacctactat
P D T V K G R F T I S R D N A K N T L Y
ccagacactgtgaagggccgattcaccatctccagagacaatgccaagaacaccctgtac
L Q M S S L K S E D T A M Y Y C A R H S
ctgcaaatgagcagctctgaagtctgaggacacagccatgtattactgtgcaagacatagt
G Y G S S Y G V L F A Y W G Q G T L V T
gggtacgggtgagctacgggtctgttttgcttactggggccaagggactctgggtcact
V S A
gtctctgca

FIG. 1

Nucleotide/residue numbering shown first followed by Kabat Numbering

1	0	---	---	-	49	42	gga	GLY	G	85	78	ctg	LEU	L
2	1	gat	ASP	D	50	43	act	THR	T	86	79	gag	GLU	E
3	2	atc	ILE	I	51	44	gtt	VAL	V	87	80	caa	GLN	Q
4	3	cag	GLN	Q	52	45	aaa	LYS	K	88	81	gaa	GLU	E
5	4	atg	MET	M	53	46	ctc	LEU	L	89	82	gat	ASP	D
6	5	acc	THR	T	54	47	ctg	LEU	L	90	83	ttt	PHE	F
7	6	cag	GLN	Q	55	48	atc	ILE	I	91	84	gcc	ALA	A
8	7	act	THR	T	56	49	tac	TYR	Y	92	85	act	THR	T
9	8	aca	THR	T	57	50	tac	TYR	Y	93	86	tac	TYR	Y
10	9	tcc	SER	S	58	51	aca	THR	T	94	87	ttt	PHE	F
11	10	tcc	SER	S	59	52	tca	SER	S	95	88	tgc	CYS	C
12	11	ctg	LEU	L	60	53	ata	ILE	I	96	89	caa	GLN	Q
13	12	tct	SER	S	61	54	tta	LEU	L	97	90	cag	GLN	Q
14	13	gcc	ALA	A	62	55	cac	HIS	H	98	91	ggt	GLY	G
15	14	tct	SER	S	63	56	tca	SER	S	99	92	aat	ASN	N
16	15	ctg	LEU	L	64	57	gga	GLY	G	100	93	acg	THR	T
					65	58	gtc	VAL	V	101	94	ctt	LEU	L
17	16	gga	GLY	G	66	59	cca	PRO	P	102	95	ccg	PRO	P
18	17	gac	ASP	D	67	60	tca	SER	S	103	95A	---	---	-
19	18	aga	ARG	R	68	61	agg	ARG	R	104	95B	---	---	-
20	19	gtc	VAL	V	69	62	ttc	PHE	F	105	95C	---	---	-
21	20	acc	THR	T	70	63	agt	SER	S	106	95D	---	---	-
22	21	att	ILE	I	71	64	ggc	GLY	G	107	95E	---	---	-
23	22	agt	SER	S	72	65	agt	SER	S	108	95F	---	---	-
24	23	tgc	CYS	C	73	66	ggg	GLY	G	109	96	tgg	TRP	W
25	24	agj	ARG	R	74	67	tct	SER	S	110	97	acg	THR	T
26	25	gca	ALA	A	75	68	gga	GLY	G	111	98	ttc	PHE	F
27	26	agt	SER	S	76	69	aca	THR	T	112	99	ggt	GLY	G
28	27	cag	GLN	Q	77	70	gat	ASP	D	113	100	gga	GLY	G
29	27A	---	---	-	78	71	tat	TYR	Y	114	101	ggc	GLY	G
30	27B	---	---	-	79	72	tct	SER	S	115	102	acc	THR	T
31	27C	---	---	-	80	73	ctc	LEU	L	116	103	aag	LYS	K
32	27D	---	---	-	81	74	acc	THR	T	117	104	ctg	LEU	L
33	27E	---	---	-	82	75	att	ILE	I	118	105	gaa	GLU	E
34	27F	---	---	-	83	76	agc	SER	S	119	106	atc	ILE	I
35	28	gac	ASP	D	84	77	aac	ASN	N	120	106A	---	---	-
36	29	att	ILE	I						121	107	aaa	LYS	K
37	30	agc	SER	S						122	108			
38	31	aat	ASN	N						123	109			
39	32	tat	TYR	Y										
40	33	tta	LEU	L										
41	34	aac	ASN	N										
42	35	tgg	TRP	W										
43	36	tat	TYR	Y										
44	37	cag	GLN	Q										
45	38	cag	GLN	Q										
46	39	aaa	LYS	K										
47	40	cca	PRO	P										
48	41	gat	ASP	D										

FIG. 2

Nucleotide/residue numbering shown first followed by Kabat Numbering

1	0	---	---	-	49	46	gag	GLU	E	85	79	tac	TYR	Y
2	1	gaa	GLU	E	50	47	tgg	TRP	W	86	80	ctg	LEU	L
3	2	gtg	VAL	V	51	48	gtc	VAL	V	87	81	caa	GLN	Q
4	3	cag	GLN	Q	52	49	gca	ALA	A	88	82	atg	MET	M
5	4	ctg	LEU	L	53	50	tac	TYR	Y	89	82A	agc	SER	S
6	5	gtg	VAL	V	54	51	att	ILE	I	90	82B	agt	SER	S
7	6	gag	GLU	E	55	52	agt	SER	S	91	82C	ctg	LEU	L
8	7	tct	SER	S	56	52A	agt	SER	S	92	83	aag	LYS	K
9	8	ggg	GLY	G	57	52B	---	---	-	93	84	tct	SER	S
10	9	gga	GLY	G	58	52C	---	---	-	94	85	gag	GLU	E
11	10	ggc	GLY	G	59	53	ggt	GLY	G	95	86	gac	ASP	D
12	11	tta	LEU	L	60	54	ggt	GLY	G	96	87	aca	THR	T
13	12	gtg	VAL	V	61	55	ggt	GLY	G	97	88	gcc	ALA	A
14	13	aag	LYS	K	62	56	acc	THR	T	98	89	atg	MET	M
15	14	cct	PRO	P	63	57	acc	THR	T	99	90	tat	TYR	Y
16	15	gga	GLY	G	64	58	tac	TYR	Y	100	91	tac	TYR	Y
					65	59	tat	TYR	Y	101	92	tgt	CYS	C
17	16	ggg	GLY	G	66	60	cca	PRO	P	102	93	gca	ALA	A
18	17	tcc	SER	S	67	61	gac	ASP	D	103	94	aga	ARG	R
19	18	ctg	LEU	L	68	62	act	THR	T	104	95	cat	HIS	H
20	19	aaa	LYS	K	69	63	gtg	VAL	V	105	96	agt	SER	S
21	20	ctc	LEU	L	70	64	aag	LYS	K	106	97	ggc	GLY	G
22	21	tcc	SER	S	71	65	ggc	GLY	G	107	98	tac	TYR	Y
23	22	tgt	CYS	C	72	66	cga	ARG	R	108	99	ggt	GLY	G
24	23	gca	ALA	A	73	67	ttc	PHE	F	109	100	agt	SER	S
25	24	gcc	ALA	A	74	68	acc	THR	T	110	100A	agc	SER	S
26	25	tct	SER	S	75	69	atc	ILE	I	111	100B	tac	TYR	Y
27	26	gga	GLY	G	76	70	tcc	SER	S	112	100C	ggg	GLY	G
28	27	ttc	PHE	F	77	71	aga	ARG	R	113	100D	gtt	VAL	V
29	28	gct	ALA	A	78	72	gac	ASP	D	114	100E	ttg	LEU	L
30	29	ttc	PHE	F	79	73	aat	ASN	N	115	100F	---	---	-
31	30	agt	SER	S	80	74	gcc	ALA	A	116	100G	---	---	-
32	31	atc	ILE	I	81	75	aag	LYS	K	117	100H	---	---	-
33	32	tat	TYR	Y	82	76	aac	ASN	N	118	100I	---	---	-
34	33	gac	ASP	D	83	77	acc	THR	T	119	100J	---	---	-
35	34	atg	MET	M	84	78	ctg	LEU	L	120	100K	ttt	PHE	F
36	35	tct	SER	S						121	101	gct	ALA	A
37	35A	---	---	-						122	102	tac	TYR	Y
38	35B	---	---	-						123	103	tgg	TRP	W
39	36	tgg	TRP	W						124	104	ggc	GLY	G
40	37	gtt	VAL	V						125	105	caa	GLN	Q
41	38	cgc	ARG	R						126	106	ggg	GLY	G
42	39	cag	GLN	Q						127	107	act	THR	T
43	40	act	THR	T						128	108	ctg	LEU	L
44	41	ccg	PRO	P						129	109	gtc	VAL	V
45	42	gag	GLU	E						130	110	act	THR	T
46	43	aag	LYS	K						131	111	gtc	VAL	V
47	44	agg	ARG	R						132	112	tct	SER	S
48	45	ctg	LEU	L						133	113	gca	ALA	A

FIG. 3

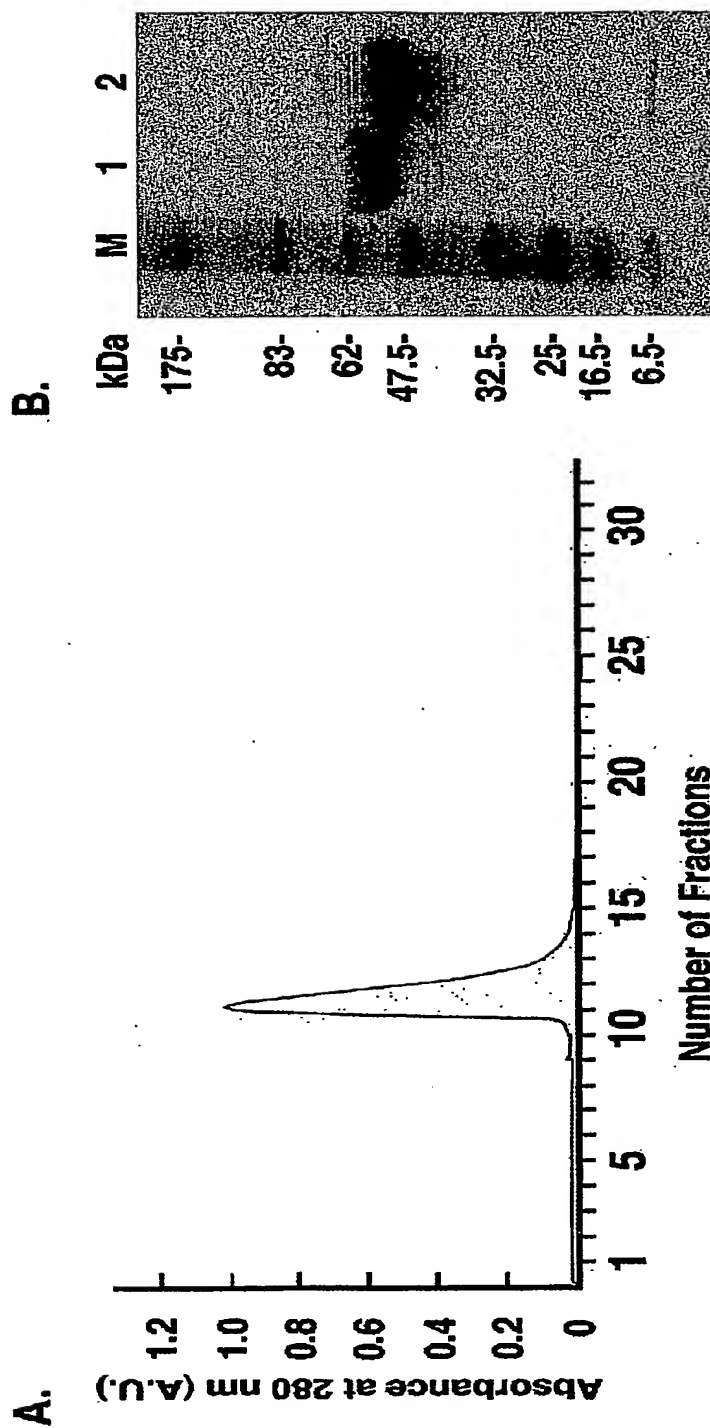


FIG. 4

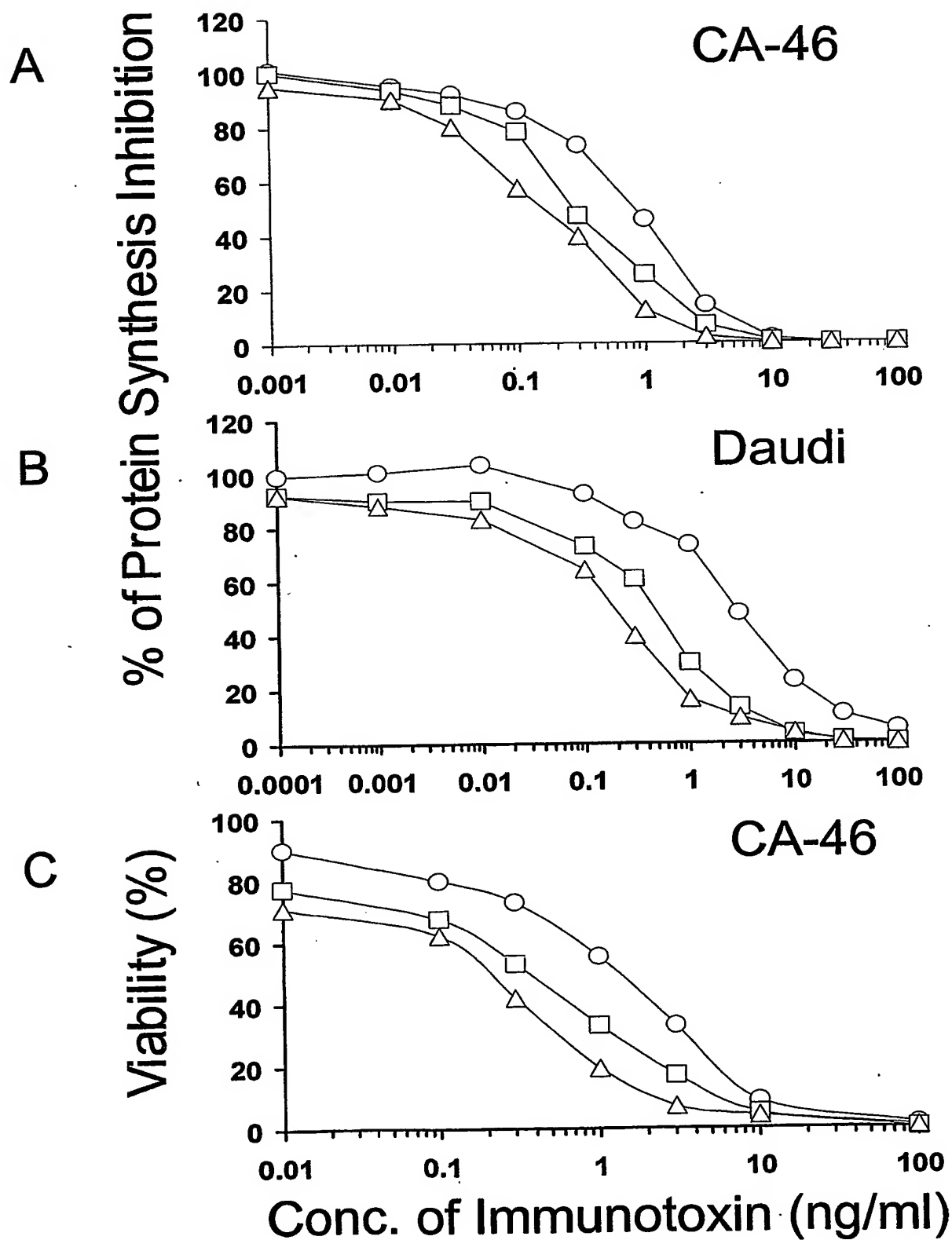


FIG. 5

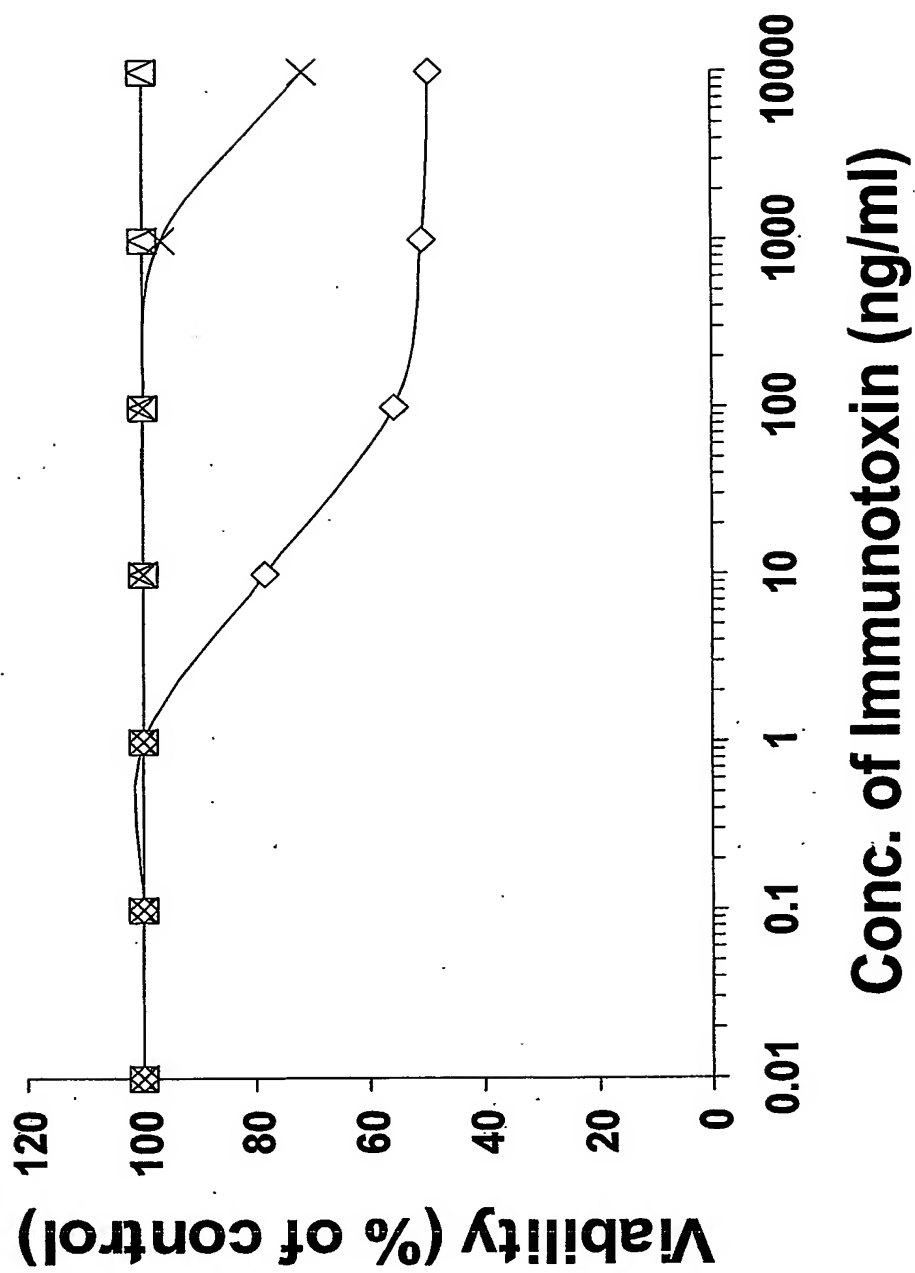


FIG. 6

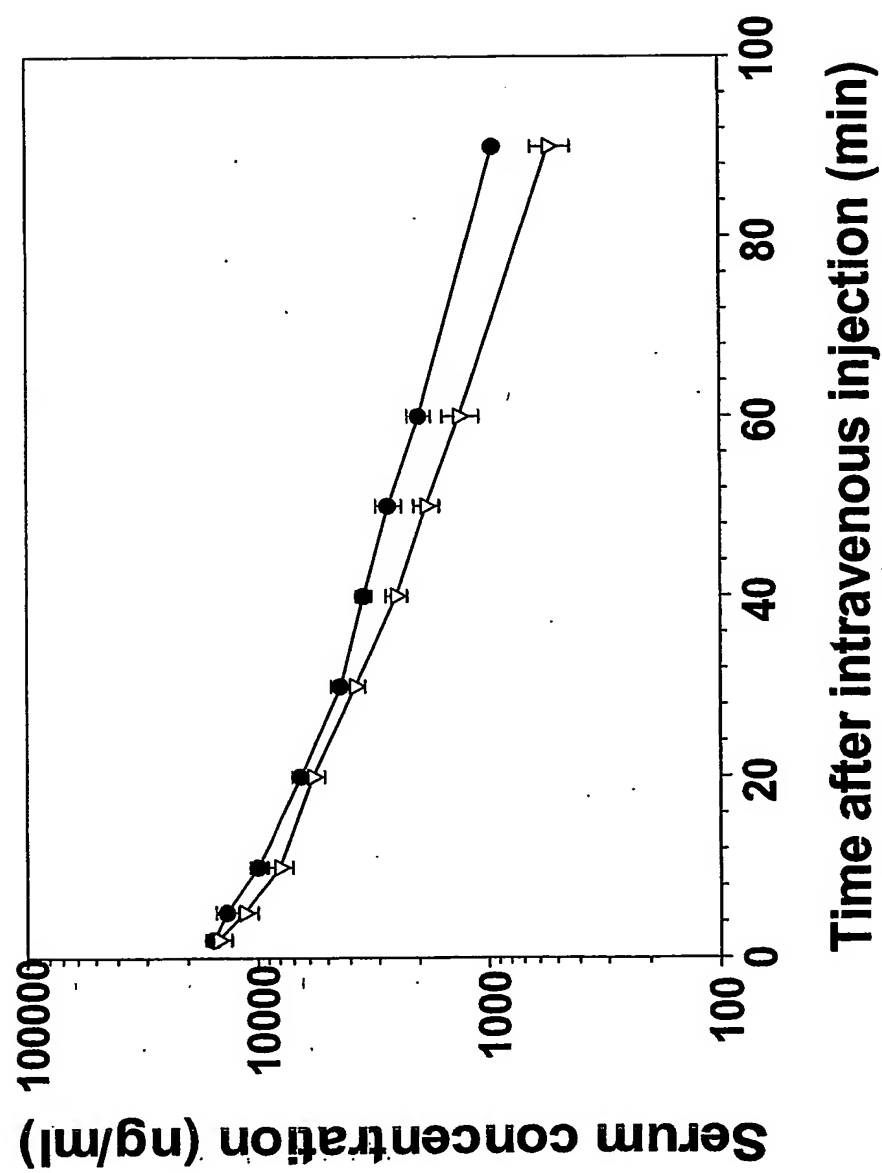
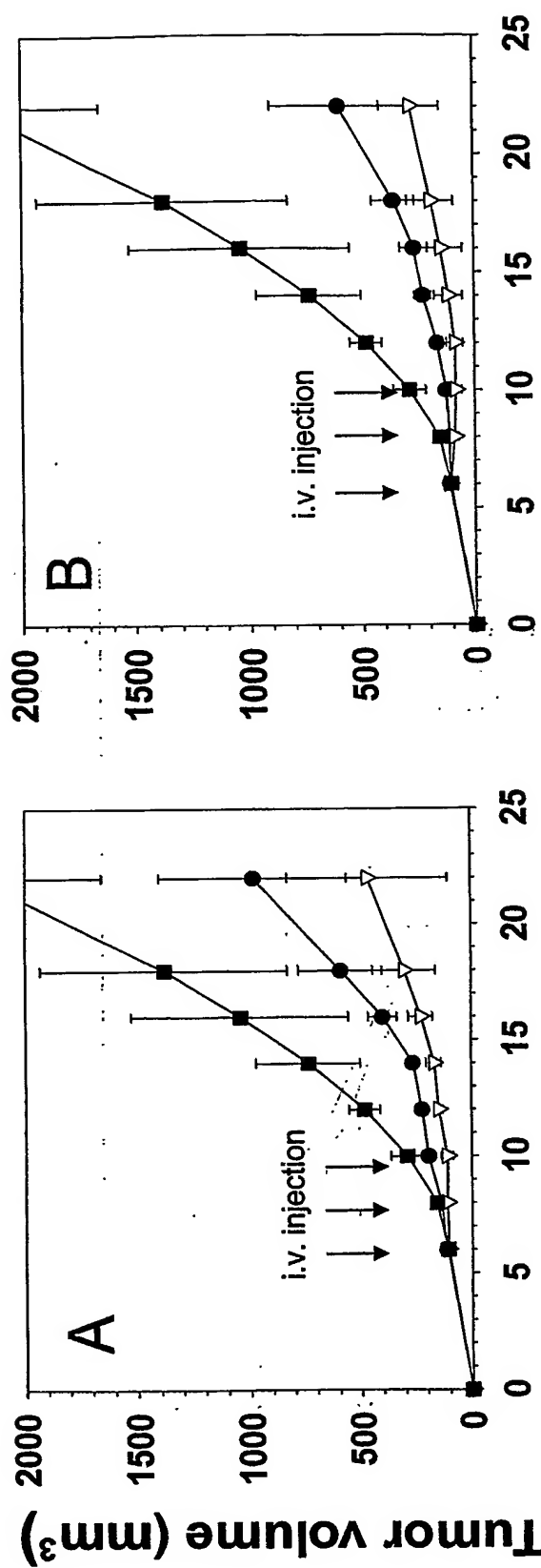


FIG. 7



Days after CA46 tumor injection

FIG. 8